

Curriculum Map
Algebra Two Honors (333)
Saugus High School
Saugus Public Schools
2009-2010

Week 1

Performance Standards

The students will:

- 10.P.1** Describe, compute, extend, analyze, generalize, and create patterns.
- 10.P.6** Solve equations and inequalities.

Unit/Topic/Lesson
UNIT ONE
Properties and Operations

1. Sets of Numbers
2. Properties of Real Numbers
3. Square Roots
4. Simplifying Algebraic Functions
5. Properties of Exponents

Mission and Expectations

1. *Critical Thinking Skills*
2. *Problem Solving Skills*
3. *Test Taking Skills*

Objectives

1. To classify and order numbers
2. To identify and use properties of real numbers.
3. To estimate square roots.
4. To simplify, add, subtract, multiply, and divide square roots.
5. To simplify and evaluate algebraic expressions.
6. To simplify expressions involving exponents.
7. To use scientific notation.

Essential Question

How do you use the laws of exponents to simplify an algebraic expression involving monomials?

Teacher Resources

Holt Algebra 2 ©2007

1. Chapter One lessons
2. Chapter One Practice Worksheets
3. Chapter One Pre-Made Assessments

Media Resources

Holt Algebra 2 ©2007

1. PowerPoint Presentations
2. Textbook On-Line
3. Homework Help (on-line)
4. Test ExamPro Generator
5. One-Stop CD Planner

Evaluation/Activities

Homework: To be given daily on each introduced topic
Review: All weekly concepts.
Quiz: Assessments given as warranted by the curriculum.
Test: On the concept of Properties and Operations

Completion date:
 Completed by:
 Comments:

Week 2

Performance Standards

The students will:

- 10.P.1** Describe, compute, extend, analyze, generalize, and create patterns.
- 10.P.6** Solve equations and inequalities.

Unit/Topic/Lesson
UNIT TWO
Introduction to Functions

1. Relations and Functions
2. Function Notation
3. Exploring Transformations
4. Introduction to Parent Functions

Mission and Expectations

1. *Critical Thinking Skills*
2. *Problem Solving Skills*
3. *Test Taking Skills*

Objectives

1. To identify the domain and range of relations and functions.
2. To determine whether a relation is a function.
3. To write functions using functional notation.
4. To evaluate and graph functions.
5. To apply transformations to points and sets of points.
6. To interpret transformations of real-world data.
7. To identify parent functions from graphs and equations.
8. To use parent functions to model real-world data and make estimates for unknown values.

Essential Question

How do you determine whether a relation is a function, both algebraically and graphically?

Teacher Resources

Holt Algebra 2 ©2007

1. Chapter One lessons
2. Chapter One Practice Worksheets
3. Chapter One Pre-Made Assessments

Media Resources

Holt Algebra 2 ©2007

1. PowerPoint Presentations
2. Textbook On-Line
3. Homework Help (on-line)
4. Test ExamPro Generator
5. One-Stop CD Planner

Evaluation/Activities

Homework: To be given daily on each introduced topic
Review: All weekly concepts.
Quiz: Assessments given as warranted by the curriculum.
Test: On concepts of Introduction to Functions

Completion date:
 Completed by:
 Comments:

Week 3		Week 4	
Performance Standards		Performance Standards	
<p><i>The students will:</i></p> <p>10.P.1 Describe, compute, extend, analyze, generalize, and create patterns.</p> <p>10.P.6 Solve equations and inequalities.</p>		<p><i>The students will:</i></p> <p>10.P.1 Describe, compute, extend, analyze, generalize, and create patterns.</p> <p>10.P.6 Solve equations and inequalities.</p>	
Unit/Topic/Lesson UNIT THREE Linear Functions		Unit/Topic/Lesson UNIT THREE Linear Functions	
<ol style="list-style-type: none"> 1. Solving Linear Equations and Inequalities (one variable) 2. Solving Proportions 3. Graphing Linear Functions (two variables) 4. Writing Linear Functions (two variables) 5. Linear Inequalities (two variables) 		<ol style="list-style-type: none"> 1. Solving Absolute Value Equations (one variable) 2. Solving Absolute Value Inequalities (one variable) 3. Absolute Value Functions (two variables) 	
Mission and Expectations		Mission and Expectations	
<ol style="list-style-type: none"> 1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills 		<ol style="list-style-type: none"> 1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills 	
Objectives	Essential Question	Objectives	Essential Question
<ol style="list-style-type: none"> 1. To solve linear equations and inequalities. 2. To apply proportional relationships to rates, similarity, and scale. 3. To graph a linear function. 4. To use slope-intercept and point-slope forms to write a linear function. 5. To solve and graph linear inequalities in two variables 	<p>What are the similarities and differences between solving a linear equation compared to a linear inequality?</p>	<ol style="list-style-type: none"> 1. To solve compound inequalities. 2. To write and solve absolute-value equations and inequalities. 3. To solve absolute value functions with two variables 	<p>What is the difference between a disjunction and a conjunction and how does it apply to absolute values?</p>
Teacher Resources	Media Resources	Teacher Resources	Media Resources
<p><i>Holt Algebra 2 ©2007</i></p> <ol style="list-style-type: none"> 1. Chapter Two lessons 2. Chapter Two Practice Worksheets 3. Chapter Two Pre-Made Assessments 	<p><i>Holt Algebra 2 ©2007</i></p> <ol style="list-style-type: none"> 1. PowerPoint Presentations 2. Textbook On-Line 3. Homework Help (on-line) 4. Test ExamPro Generator One-Stop CD Planner 	<p><i>Holt Algebra 2 ©2007</i></p> <ol style="list-style-type: none"> 1. Chapter Two lessons 2. Chapter Two Practice Worksheets 3. Chapter Two Pre-Made Assessments 	<p><i>Holt Algebra 2 ©2007</i></p> <ol style="list-style-type: none"> 1. PowerPoint Presentations 2. Textbook On-Line 3. Homework Help (on-line) 4. Test ExamPro Generator 5. One-Stop CD Planner
Evaluation/Activities		Evaluation/Activities	
<p>Homework: To be given daily on each introduced topic</p> <p>Review: All weekly concepts.</p> <p>Quiz: Assessments given as warranted by the curriculum.</p>	<p>Completion date:</p> <p>Completed by:</p> <p>Comments:</p>	<p>Homework: To be given daily on each introduced topic</p> <p>Review: All weekly concepts.</p> <p>Quiz: Assessments given as warranted by the curriculum.</p>	<p>Completion date:</p> <p>Completed by:</p> <p>Comments:</p>

Week 5		Week 6	
<p align="center">Performance Standards</p> <p><i>The students will:</i> 10.P.8 Solve problems using systems of linear Equations or inequalities 12.P.10 Use symbolic, numeric, and graphical methods to solve systems of equations and/or inequalities</p>		<p align="center">Performance Standards</p> <p><i>The students will:</i> 10.P.8 Solve problems using systems of linear Equations or inequalities 12.P.10 Use symbolic, numeric, and graphical methods to solve systems of equations and/or inequalities</p>	
<p align="center">Unit/Topic/Lesson UNIT FOUR Systems of Linear Equations and Inequalities</p> <ol style="list-style-type: none"> Solving a System of Linear Equations by Graphing (on paper) Solving a System of Linear Equation by Graphing (using a graphing calculator) Solving a System of Linear Equations by Symbolically Using Substitution Solving a System of Linear Equation by Symbolically Using the Elimination Method 		<p align="center">Unit/Topic/Lesson UNIT FOUR Systems of Linear Equations and Inequalities</p> <ol style="list-style-type: none"> Solving a System of Linear Equations by Using the Appropriate Method Solving a System of Linear Equations with Three Variables Solving a System of Linear Inequalities 	
<p align="center">Mission and Expectations</p> <p>1. <i>Critical Thinking Skills</i> 2. <i>Problem Solving Skills</i> 3. <i>Test Taking Skills</i></p>		<p align="center">Mission and Expectations</p> <p>1. <i>Critical Thinking Skills</i> 2. <i>Problem Solving Skills</i> 3. <i>Test Taking Skills</i></p>	
<p align="center">Objectives</p> <ol style="list-style-type: none"> To find the solution to a linear system by graphing on paper. To find the solution to a linear system by graphing using a graphing calculator To solve a system of linear equations by the algebraic method of substitution. To solve a system of linear equations by the algebraic method of elimination (linear combination) 	<p align="center">Essential Question</p> <p>How do you classify a linear system as dependent or independent and consistent or inconsistent?</p>	<p align="center">Objectives</p> <ol style="list-style-type: none"> To select the appropriate method to solve a linear system. To solve a system of linear equations that contains three variables. To solve a system of linear inequalities by graphing. 	<p align="center">Essential Question</p> <p>How do you decide which is the appropriate method of solution to a given system of linear equations?</p>
<p align="center">Teacher Resources <i>Holt Algebra 2 ©2007</i></p> <ol style="list-style-type: none"> Chapter Three lessons Chapter Three Practice Worksheets Chapter Three Pre-Made Assessments 	<p align="center">Media Resources <i>Holt Algebra 2 ©2007</i></p> <ol style="list-style-type: none"> PowerPoint Presentations Textbook On-Line Homework Help (on-line) Test ExamPro Generator One-Stop CD Planner 	<p align="center">Teacher Resources <i>Holt Algebra 2 ©2007</i></p> <ol style="list-style-type: none"> Chapter Three lessons Chapter Three Practice Worksheets Chapter Three Pre-Made Assessments 	<p align="center">Media Resources <i>Holt Algebra 2 ©2007</i></p> <ol style="list-style-type: none"> PowerPoint Presentations Textbook On-Line Homework Help (on-line) Test ExamPro Generator One-Stop CD Planner
<p align="center">Evaluation/Activities</p> <p>Homework: To be given daily on each introduced topic Review: All weekly concepts. Quiz: Assessments given as warranted by the curriculum.</p>	<p>Completion date:</p> <p>Completed by:</p> <p>Comments:</p>	<p align="center">Evaluation/Activities</p> <p>Homework: To be given daily on each introduced topic Review: All weekly concepts. Quiz: Assessments given as warranted by the curriculum.</p>	<p>Completion date:</p> <p>Completed by:</p> <p>Comments:</p>

Week 7		Week 8	
<p align="center">Performance Standards</p> <p><i>The students will:</i> 10.P.8 Solve problems using systems of linear Equations or inequalities 12.P.10 Use symbolic, numeric, and graphical methods to solve systems of equations and/or inequalities</p>		<p align="center">Performance Standards</p> <p><i>The students will:</i> 12.P.9 Use matrices to solve systems of linear equations. Apply to everyday problems</p>	
<p align="center">Unit/Topic/Lesson UNIT FOUR Systems of Linear Equations and Inequalities</p> <ol style="list-style-type: none"> Linear Programming Solving Linear Programming Problems 		<p align="center">Unit/Topic/Lesson UNIT FIVE Matrices</p> <ol style="list-style-type: none"> Representations of Data and Data Handling. Operations with Matrices. Solving Problems Using Matrices Matrices Using Graphing Calculators 	
<p align="center">Mission and Expectations</p> <p><i>1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills</i></p>		<p align="center">Mission and Expectations</p> <p><i>1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills</i></p>	
<p align="center">Objectives</p> <ol style="list-style-type: none"> To solve linear programming problems. To find the feasible region of solution to a problem. 	<p align="center">Essential Question</p> <p>How do you determine the feasible region of solution to a given problem and how do you optimize the objective function?</p>	<p align="center">Objectives</p> <ol style="list-style-type: none"> To find the sum, differences, scalar product, and product of matrices. To solve problems involving matrices. To use the graphing calculator to perform operations with matrices. 	<p align="center">Essential Question</p> <p>How do you determine whether two matrices can be added, subtracted, or multiplied?</p>
<p align="center">Teacher Resources <i>Holt Algebra 2 ©2007</i></p> <ol style="list-style-type: none"> Chapter Three lessons Chapter Three Practice Worksheets Chapter Three Pre-Made Assessments 	<p align="center">Media Resources <i>Holt Algebra 2 ©2007</i></p> <ol style="list-style-type: none"> PowerPoint Presentations Textbook On-Line Homework Help (on-line) Test ExamPro Generator One-Stop CD Planner 	<p align="center">Teacher Resources <i>Holt Algebra 2 ©2007</i></p> <ol style="list-style-type: none"> Chapter Four lessons Chapter Four Practice Worksheets Chapter Four Pre-Made Assessments 	<p align="center">Media Resources <i>Holt Algebra 2 ©2007</i></p> <ol style="list-style-type: none"> PowerPoint Presentations Textbook On-Line Homework Help (on-line) Test ExamPro Generator One-Stop CD Planner
<p align="center">Evaluation/Activities</p> <p>Homework: To be given daily on each introduced topic Review: All weekly concepts. Quiz: Assessments given as warranted by the curriculum. Test: On the concepts of Solving Linear Systems</p>	<p>Completion date:</p> <p>Completed by:</p> <p>Comments:</p>	<p align="center">Evaluation/Activities</p> <p>Homework: To be given daily on each introduced topic Review: All weekly concepts. Quiz: Assessments given as warranted by the curriculum.</p>	<p>Completion date:</p> <p>Completed by:</p> <p>Comments:</p>

Week 9		Week 10	
<p align="center">Performance Standards</p> <p><i>The students will:</i></p> <p>10.P.8 Solve problems using systems of linear Equations or inequalities 12.P.10 Use symbolic, numeric, and graphical methods to solve systems of equations and/or inequalities. 12.P.9 Use matrices to solve systems of linear equations. Apply to everyday problems</p>		<p align="center">Performance Standards</p> <p><i>The students will:</i></p> <p>10.P.5 Find solutions to quadratic equations. 12.P.7 Find solutions to quadratic equations. 12.P.8 Solve a variety of equations and inequalities. 12.P.12 Identify maximum and minimum values of a function.</p>	
<p align="center">Unit/Topic/Lesson UNIT FIVE Matrices</p> <p>1. Solving a System of Linear Equations by Using Matrices 2. Solving a System of Linear Equations with Three Variables</p>		<p align="center">Unit/Topic/Lesson UNIT SIX Quadratic Functions</p> <p>1. Introduction to Quadratic Functions and Equations 2. Transformation of Quadratic Functions 3. Vertex Form of a Quadratic Function 4. Standard Form of a Quadratic Function 5. Properties of Quadratic Functions</p>	
<p align="center">Mission and Expectations</p> <p>1. <i>Critical Thinking Skills</i> 2. <i>Problem Solving Skills</i> 3. <i>Test Taking Skills</i></p>		<p align="center">Mission and Expectations</p> <p>1. <i>Critical Thinking Skills</i> 2. <i>Problem Solving Skills</i> 3. <i>Test Taking Skills</i></p>	
<p align="center">Objectives</p> <p>1. To solve a system of linear equations using matrices concepts. 2. To solve a system of linear equations that contains three variables.</p>	<p align="center">Essential Question</p> <p>What does the solution to a system of linear equations represent?</p>	<p align="center">Objectives</p> <p>1. To transform quadratic functions. 2. To write quadratic function in various forms. 3. To identify properties of given quadratic functions.</p>	<p align="center">Essential Question</p> <p>How do you determine the minimum and maximum value of a quadratic function from the equation?</p>
<p align="center">Teacher Resources <i>Holt Algebra 2 ©2007</i></p> <p>4. Chapter Four lessons 5. Chapter Four Practice Worksheets 6. Chapter Four Pre-Made Assessments</p>	<p align="center">Media Resources <i>Holt Algebra 2 ©2007</i></p> <p>1. PowerPoint Presentations 2. Textbook On-Line 3. Homework Help (on-line) 4. Test ExamPro Generator 5. One-Stop CD Planner</p>	<p align="center">Teacher Resources <i>Holt Algebra 2 ©2007</i></p> <p>1. Chapter Five lessons 2. Chapter Five Practice Worksheets 3. Chapter Five Pre-Made Assessments</p>	<p align="center">Media Resources <i>Holt Algebra 2 ©2007</i></p> <p>1. PowerPoint Presentations 2. Textbook On-Line 3. Homework Help (on-line) 4. Test ExamPro Generator 5. One-Stop CD Planner</p>
<p align="center">Evaluation/Activities</p> <p>Homework: To be given daily on each introduced topic Review: All weekly concepts. Quiz: Assessments given as warranted by the curriculum. Test: On the concept of Matrices</p>	<p>Completion date:</p> <p>Completed by:</p> <p>Comments:</p>	<p align="center">Evaluation/Activities</p> <p>Homework: To be given daily on each introduced topic Review: All weekly concepts. Quiz: Assessments given as warranted by the curriculum.</p>	<p>Completion date:</p> <p>Completed by:</p> <p>Comments:</p>

Week 11		Week 12	
Performance Standards		Performance Standards	
<p><i>The students will:</i> 10.P.5 Find solutions to quadratic equations. 12.P.7 Find solutions to quadratic equations. 12.P.8 Solve a variety of equations and inequalities.</p>		<p><i>The students will:</i> 10.P.5 Find solutions to quadratic equations. 12.P.7 Find solutions to quadratic equations. 12.P.8 Solve a variety of equations and inequalities.</p>	
Unit/Topic/Lesson UNIT SIX Quadratic Functions		Unit/Topic/Lesson UNIT SIX Quadratic Functions	
<ol style="list-style-type: none"> 1. The Zero-Product Property 2. Solving a Quadratic Equation by Factoring 3. Solving a Quadratic Equation by Graphing on Paper 4. Solving a Quadratic Equation by Graphing with the Graphing Calculator 5. Solving a Quadratic Equation using the Square-Root Property 		<ol style="list-style-type: none"> 1. Concept of Completing the Square 2. Solving a Quadratic Equation by Completing the Square 3. Solving a Quadratic Equation by Using the Quadratic Formula 4. Classifying Solutions Using the Discriminant 	
Mission and Expectations		Mission and Expectations	
<i>1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills</i>		<i>1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills</i>	
Objectives	Essential Question	Objectives	Essential Question
<ol style="list-style-type: none"> 1. To solve a quadratic equation by factoring and the zero-product property. 2. To solve a quadratic equation by graphing and determining the zeros. 3. To use a graphing calculator to find the roots of a quadratic equation. 	<p>How does the concept of the zero-product property allow you to find the roots of a quadratic function?</p>	<ol style="list-style-type: none"> 1. To complete the procedure of completing the square. 2. To use the concept of completing the square to solve a quadratic equation. 3. To solve a quadratic equation using the square-root property. 4. To use the Quadratic Formula to solve a quadratic equation. 5. To use the Discriminant to determine the number and nature of the roots. 	<p>Why does the discriminant determine the number and nature of the roots to a quadratic equation and how does it relate to the Quadratic Formula?</p>
Teacher Resources	Media Resources	Teacher Resources	Media Resources
<i>Holt Algebra 2 ©2007</i>	<i>Holt Algebra 2 ©2007</i>	<i>Holt Algebra 2 ©2007</i>	<i>Holt Algebra 2 ©2007</i>
<ol style="list-style-type: none"> 1. Chapter Five lessons 2. Chapter Five Practice Worksheets 3. Chapter Five Pre-Made Assessments 	<ol style="list-style-type: none"> 1. PowerPoint Presentations 2. Textbook On-Line 3. Homework Help (on-line) 4. Test ExamPro Generator 5. One-Stop CD Planner 	<ol style="list-style-type: none"> 1. Chapter Five lessons 2. Chapter Five Practice Worksheets 3. Chapter Five Pre-Made Assessments 	<ol style="list-style-type: none"> 1. PowerPoint Presentations 2. Textbook On-Line 3. Homework Help (on-line) 4. Test ExamPro Generator 5. One-Stop CD Planner
Evaluation/Activities		Evaluation/Activities	
<p>Homework: To be given daily on each introduced topic Review: All weekly concepts. Quiz: Assessments given as warranted by the curriculum.</p>	<p>Completion date: Completed by: Comments:</p>	<p>Homework: To be given daily on each introduced topic Review: All weekly concepts. Quiz: Assessments given as warranted by the curriculum. Test: On the concepts of Quadratic Functions</p>	<p>Completion date: Completed by: Comments:</p>

Week 13		Week 14	
Performance Standards		Performance Standards	
<p><i>The students will:</i> 12.P.6 Recognize functions as polynomial, rational, logarithmic, or exponential. 12.P.3 Demonstrate an understanding of the binomial theorem 12.P.11 Solve everyday problems that can be modeled using polynomial, rational, exponential, logarithmic, step functions, absolute value and square roots.</p>		<p><i>The students will:</i> 12.P.6 Recognize functions as polynomial, rational, logarithmic, or exponential. 12.P.11 Solve everyday problems that can be modeled using polynomial, rational, exponential, logarithmic, step functions, absolute value and square roots.</p>	
Unit/Topic/Lesson UNIT SEVEN Operations with Polynomials		Unit/Topic/Lesson UNIT SEVEN Operations with Polynomials	
<ol style="list-style-type: none"> 1. Classification of Polynomials 2. Addition and Subtraction of Polynomials 3. Multiplication of Polynomials 4. Long Division of Polynomials 5. Synthetic Division of Polynomials 		<ol style="list-style-type: none"> 1. Factoring Polynomials 2. Finding Real Roots of Polynomial Equations 3. The Fundamental Theorem of Algebra 	
Mission and Expectations		Mission and Expectations	
<ol style="list-style-type: none"> 1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills 		<ol style="list-style-type: none"> 1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills 	
Objectives <ol style="list-style-type: none"> 1. To identify, evaluate, add, and subtract polynomials. 2. To multiply polynomials. 3. To use binomial expansion to expand binomial expressions that are raised to various positive integer powers. 4. To use long division and synthetic division to divide polynomials. 5. To determine factors of a polynomial. 	Essential Question Why is it important to supply a zero for a coefficient of any missing term, when you are divide polynomials?	Objectives <ol style="list-style-type: none"> 1. To determine factors of a polynomial. 2. To factor a polynomial by grouping. 3. To factor the sum or difference of two cubes. 4. To identify the multiplicity of roots. 5. To find real roots of polynomial equations. 6. To use the Fundamental Theorem of Algebra. 7. To identify all of the roots of a polynomial equation. 	Essential Question How do you find the real roots of a polynomial equation?
Teacher Resources <i>Holt Algebra 2 ©2007</i> <ol style="list-style-type: none"> 1. Chapter Six lessons 2. Chapter Six Practice Worksheets 3. Chapter Six Pre-Made Assessments 	Media Resources <i>Holt Algebra 2 ©2007</i> <ol style="list-style-type: none"> 1. PowerPoint Presentations 2. Textbook On-Line 3. Homework Help (on-line) 4. Test ExamPro Generator 5. One-Stop CD Planner 	Teacher Resources <i>Holt Algebra 2 ©2007</i> <ol style="list-style-type: none"> 1. Chapter Six lessons 2. Chapter Six Practice Worksheets 3. Chapter Six Pre-Made Assessments 	Media Resources <i>Holt Algebra 2 ©2007</i> <ol style="list-style-type: none"> 1. PowerPoint Presentations 2. Textbook On-Line 3. Homework Help (on-line) 4. Test ExamPro Generator 5. One-Stop CD Planner
Evaluation/Activities Homework: To be given daily on each introduced topic Review: All weekly concepts. Quiz: Assessments given as warranted by the curriculum.	Completion date: Completed by: Comments:	Evaluation/Activities Homework: To be given daily on each introduced topic Review: All weekly concepts. Quiz: Assessments given as warranted by the curriculum.	Completion date: Completed by: Comments:

Week 15		Week 16	
<p align="center">Performance Standards</p> <p><i>The students will:</i> 12.P.13 Describe the translations and scale changes of a given function $f(x)$ resulting from substitutions for the various parameters a, b, c, and d in $y = af(b(x + c/b)) + d$. In particular, describe the effect of such changes on polynomial, rational, exponential, logarithmic, and trigonometric functions. 12.P.6 Recognize functions as polynomial, rational, logarithmic, or exponential. 12.P.8 Solve a variety of equations and inequalities using algebraic, graphical, and numerical methods, including the quadratic formula; use technology where appropriate. Include polynomial, exponential, logarithmic, and trigonometric functions; expressions involving absolute values; trigonometric relations; and simple rational expressions.</p>		<p align="center">Performance Standards</p> <p><i>The students will:</i> 12.P.4 Demonstrate an understanding of exponential and logarithmic functions. 12.P.5 Perform operations on functions, including composition. Find the inverses of functions. 12.P.6 Recognize functions as polynomial, rational, logarithmic, or exponential. 12.P.11 Solve everyday problems that can be modeled using polynomial, rational, exponential, logarithmic, step functions, absolute value and square roots.</p>	
<p align="center">Unit/Topic/Lesson UNIT SEVEN Operations with Polynomials</p> <ol style="list-style-type: none"> Graphs of Polynomial Functions Transformations of Polynomial Functions Polynomial Models and Curve Fitting with Polynomial Functions 		<p align="center">Unit/Topic/Lesson UNIT EIGHT Exponential and Logarithmic Functions</p> <ol style="list-style-type: none"> Exponential Functions Exponential Growth and Decay Inverse of Relations and Functions 	
<p align="center">Mission and Expectations</p> <ol style="list-style-type: none"> Critical Thinking Skills Problem Solving Skills Test Taking Skills 		<p align="center">Mission and Expectations</p> <ol style="list-style-type: none"> Critical Thinking Skills Problem Solving Skills Test Taking Skills 	
<p align="center">Objectives</p> <ol style="list-style-type: none"> To analyze, describe, and graph polynomial functions. To identify and use maximum and minimum values of polynomial functions. To transform polynomial functions. To determine the degree of a polynomial that fits a given data set. To use graphing calculators to model polynomial functions. 	<p align="center">Essential Question</p> <p>How do you describe a transformation of a given polynomial function?</p>	<p align="center">Objectives</p> <ol style="list-style-type: none"> To write and evaluate exponential expressions to model growth or decay situations. To graph and recognize inverses of both relations and functions. To find inverse of functions 	<p align="center">Essential Question</p> <p>How do you use the concept of exponential growth to work with the principle of compound interest?</p>
<p align="center">Teacher Resources <i>Holt Algebra 2 ©2007</i></p> <ol style="list-style-type: none"> Chapter Six lessons Chapter Six Practice Worksheets Chapter Six Pre-Made Assessments 	<p align="center">Media Resources <i>Holt Algebra 2 ©2007</i></p> <ol style="list-style-type: none"> PowerPoint Presentations Textbook On-Line Homework Help (on-line) Test ExamPro Generator One-Stop CD Planner 	<p align="center">Teacher Resources <i>Holt Algebra 2 ©2007</i></p> <ol style="list-style-type: none"> Chapter Seven lessons Chapter Seven Practice Worksheets Chapter Seven Pre-Made Assessments 	<p align="center">Media Resources <i>Holt Algebra 2 ©2007</i></p> <ol style="list-style-type: none"> PowerPoint Presentations Textbook On-Line Homework Help (on-line) Test ExamPro Generator One-Stop CD Planner
<p align="center">Evaluation/Activities</p> <p>Homework: To be given daily on each introduced topic Review: All weekly concepts. Quiz: Assessments given as warranted by the curriculum. Test: On the concepts of Polynomials</p>	<p>Completion date:</p> <p>Completed by:</p> <p>Comments:</p>	<p align="center">Evaluation/Activities</p> <p>Homework: To be given daily on each introduced topic Review: All weekly concepts. Quiz: Assessments given as warranted by the curriculum.</p>	<p>Completion date:</p> <p>Completed by:</p> <p>Comments:</p>

Week 17		Week 18	
Performance Standards		Performance Standards	
<p><i>The students will:</i> 12.P.4 Demonstrate an understanding of exponential and logarithmic functions. 12.P.6 Recognize functions as polynomial, rational, logarithmic, or exponential. 12.P.11 Solve everyday problems that can be modeled using polynomial, rational, exponential, logarithmic, step functions, absolute value and square roots.</p>		<p><i>The students will:</i> 12.P.4 Demonstrate an understanding of exponential and logarithmic functions. 12.P.6 Recognize functions as polynomial, rational, logarithmic, or exponential.</p>	
Unit/Topic/Lesson UNIT EIGHT Exponential and Logarithmic Functions		Unit/Topic/Lesson UNIT EIGHT Exponential and Logarithmic Functions	
<ol style="list-style-type: none"> Logarithmic Functions Properties of Logarithms 		<ol style="list-style-type: none"> The Natural Base e Exponential and Logarithmic Equations 	
Mission and Expectations		Mission and Expectations	
<ol style="list-style-type: none"> Critical Thinking Skills Problem Solving Skills Test Taking Skills 		<ol style="list-style-type: none"> Critical Thinking Skills Problem Solving Skills Test Taking Skills 	
Objectives	Essential Question	Objectives	Essential Question
<ol style="list-style-type: none"> To write equivalent forms for exponential and logarithmic functions. To write, graph, and evaluate logarithmic functions. To use the properties of logarithms to simplify logarithmic expressions. To translate between logarithms in any base. 	<p>How do you convert between exponential and logarithmic form?</p>	<ol style="list-style-type: none"> To use the number e to write and graph exponential functions. To solve equations and problems involving e or the natural logarithm. 	<p>How do you use the inverse relationship between exponential and logarithmic functions to solve equations?</p>
Teacher Resources <i>Holt Algebra 2 ©2007</i>	Media Resources <i>Holt Algebra 2 ©2007</i>	Teacher Resources <i>Holt Algebra 2 ©2007</i>	Media Resources <i>Holt Algebra 2 ©2007</i>
<ol style="list-style-type: none"> Chapter Seven lessons Chapter Seven Practice Worksheets Chapter Seven Pre-Made Assessments 	<ol style="list-style-type: none"> PowerPoint Presentations Textbook On-Line Homework Help (on-line) Test ExamPro Generator One-Stop CD Planner 	<ol style="list-style-type: none"> Chapter Seven lessons Chapter Seven Practice Worksheets Chapter Seven Pre-Made Assessments 	<ol style="list-style-type: none"> PowerPoint Presentations Textbook On-Line Homework Help (on-line) Test ExamPro Generator One-Stop CD Planner
Evaluation/Activities		Evaluation/Activities	
<p>Homework: To be given daily on each introduced topic Review: All weekly concepts. Quiz: Assessments given as warranted by the curriculum.</p>	<p>Completion date: Completed by: Comments:</p>	<p>Homework: To be given daily on each introduced topic Review: All weekly concepts. Quiz: Assessments given as warranted by the curriculum. Test: On the concepts of Exponential and Logarithmic Functions</p>	<p>Completion date: Completed by: Comments:</p>

Week 19		Week 20	
<p align="center">Performance Standards</p> <p><i>The students will:</i> 12.P.6 Recognize functions as polynomial, rational, logarithmic, or exponential.</p>		<p align="center">Performance Standards</p> <p><i>The students will:</i> 12.P.6 Recognize functions as polynomial, rational, logarithmic, or exponential.</p>	
<p align="center">Unit/Topic/Lesson UNIT NINE Rational and Radical Functions</p> <ol style="list-style-type: none"> Variation Functions Multiplying And Dividing Rational Expressions Adding and Subtracting Rational Expressions 		<p align="center">Unit/Topic/Lesson UNIT NINE Rational and Radical Functions</p> <ol style="list-style-type: none"> Rational Functions Solving Rational Equations Solving Rational Inequalities 	
<p align="center">Mission and Expectations</p> <p>1. <i>Critical Thinking Skills</i> 2. <i>Problem Solving Skills</i> 3. <i>Test Taking Skills</i></p>		<p align="center">Mission and Expectations</p> <p>1. <i>Critical Thinking Skills</i> 2. <i>Problem Solving Skills</i> 3. <i>Test Taking Skills</i></p>	
<p align="center">Objectives</p> <ol style="list-style-type: none"> To solve problems involving direct, inverse, joint, and combined variations. To simplify, multiply, divide, add, and subtract rational expressions. 	<p align="center">Essential Question</p> <p>How do you know when a rational expression can be simplified?</p>	<p align="center">Objectives</p> <ol style="list-style-type: none"> To graph and transform rational expressions. To solve rational equations and inequalities. 	<p align="center">Essential Question</p> <p>When rational equations, when is it necessary to ignore erroneous solutions?</p>
<p align="center">Teacher Resources <i>Holt Algebra 2 ©2007</i></p> <ol style="list-style-type: none"> Chapter Eight lessons Chapter Eight Practice Worksheets Chapter Eight Pre-Made Assessments 	<p align="center">Media Resources <i>Holt Algebra 2 ©2007</i></p> <ol style="list-style-type: none"> PowerPoint Presentations Textbook On-Line Homework Help (on-line) Test ExamPro Generator One-Stop CD Planner 	<p align="center">Teacher Resources <i>Holt Algebra 2 ©2007</i></p> <ol style="list-style-type: none"> Chapter Eight lessons Chapter Eight Practice Worksheets Chapter Eight Pre-Made Assessments 	<p align="center">Media Resources <i>Holt Algebra 2 ©2007</i></p> <ol style="list-style-type: none"> PowerPoint Presentations Textbook On-Line Homework Help (on-line) Test ExamPro Generator One-Stop CD Planner
<p align="center">Evaluation/Activities</p> <p>Homework: To be given daily on each introduced topic Review: All weekly concepts. Quiz: Assessments given as warranted by the curriculum.</p>	<p>Completion date:</p> <p>Completed by:</p> <p>Comments:</p>	<p align="center">Evaluation/Activities</p> <p>Homework: To be given daily on each introduced topic Review: All weekly concepts. Quiz: Assessments given as warranted by the curriculum.</p>	<p>Completion date:</p> <p>Completed by:</p> <p>Comments:</p>

Week 21	
Performance Standards	
<p><i>The students will:</i></p> <p>12.P.6 Recognize functions as polynomial, rational, logarithmic, or exponential.</p> <p>12.P.11 Solve everyday problems that can be modeled using polynomial, rational, exponential, logarithmic, step functions, absolute value and square roots.</p> <p>12.N.2 Simplify numerical expressions with powers and roots, including fractional and negative exponents.</p>	
Unit/Topic/Lesson UNIT NINE Rational and Radical Functions	
<ol style="list-style-type: none"> 1. Radical Expressions 2. Rational Exponents 3. Radical Functions and Equations 	
Mission and Expectations	
<ol style="list-style-type: none"> 1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills 	
<p style="text-align: center;">Objectives</p> <ol style="list-style-type: none"> 1. To write radical expressions using rational exponents. 2. To evaluate and simplify radical expressions. 3. To graph and transform radical functions. 4. To solve radical equations. 	<p style="text-align: center;">Essential Question</p> <p>Why is it necessary to check the possible solutions for extraneous roots when solving a radical equation?</p>
<p style="text-align: center;">Teacher Resources <i>Holt Algebra 2 ©2007</i></p> <ol style="list-style-type: none"> 1. Chapter Eight lessons 2. Chapter Eight Practice Worksheets 3. Chapter Eight Pre-Made Assessments 	<p style="text-align: center;">Media Resources <i>Holt Algebra 2 ©2007</i></p> <ol style="list-style-type: none"> 1. PowerPoint Presentations 2. Textbook On-Line 3. Homework Help (on-line) 4. Test ExamPro Generator 5. One-Stop CD Planner
<p style="text-align: center;">Evaluation/Activities</p> <p>Homework: To be given daily on each introduced topic</p> <p>Review: All weekly concepts.</p> <p>Quiz: Assessments given as warranted by the curriculum.</p> <p>Test: On concepts involving Rational and Radical Functions.</p>	<p>Completion date:</p> <p>Completed by:</p> <p>Comments:</p>

Week 22	
Performance Standards	
<p><i>The students will:</i></p> <p>12.P.13 Describe the translations and scale changes of a given function $f(x)$ resulting from substitutions for the various parameters a, b, c, and d in $y = af(b(x + c/b)) + d$. In particular, describe the effect of such changes on polynomial, rational, exponential, logarithmic, and trigonometric functions.</p>	
Unit/Topic/Lesson UNIT TEN Properties and Attributes of Functions	
<ol style="list-style-type: none"> 1. Various Representations of Functions 2. Piecewise Functions 	
Mission and Expectations	
<ol style="list-style-type: none"> 1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills 	
<p style="text-align: center;">Objectives</p> <ol style="list-style-type: none"> 1. To translate between different representations of functions. 2. To solve problems using various representations of functions. 3. To write and graph piecewise functions. 4. To use piecewise functions to solve problems. 	<p style="text-align: center;">Essential Question</p> <p>Why is it important to represent functions in more than one notation?</p>
<p style="text-align: center;">Teacher Resources <i>Holt Algebra 2 ©2007</i></p> <ol style="list-style-type: none"> 1. Chapter Nine lessons 2. Chapter Nine Practice Worksheets 3. Chapter Nine Pre-Made Assessments 	<p style="text-align: center;">Media Resources <i>Holt Algebra 2 ©2007</i></p> <ol style="list-style-type: none"> 1. PowerPoint Presentations 2. Textbook On-Line 3. Homework Help (on-line) 4. Test ExamPro Generator 5. One-Stop CD Planner
<p style="text-align: center;">Evaluation/Activities</p> <p>Homework: To be given daily on each introduced topic</p> <p>Review: All weekly concepts.</p> <p>Quiz: Assessments given as warranted by the curriculum.</p>	<p>Completion date:</p> <p>Completed by:</p> <p>Comments:</p>

Week 23		Week 24	
Performance Standards		Performance Standards	
<p><i>The students will:</i> 12.P.13 Describe the translations and scale changes of a given function $f(x)$ resulting from substitutions for the various parameters a, b, c, and d in $y = af(b(x + c/b)) + d$. In particular, describe the effect of such changes on polynomial, rational, exponential, logarithmic, and trigonometric functions.</p>		<p><i>The students will:</i> 12.P.13 Describe the translations and scale changes of a given function $f(x)$ resulting from substitutions for the various parameters a, b, c, and d in $y = af(b(x + c/b)) + d$. In particular, describe the effect of such changes on polynomial, rational, exponential, logarithmic, and trigonometric functions. 12.P.11 Solve everyday problems that can be modeled using polynomial, rational, exponential, logarithmic, trigonometric, and step functions, absolute values, and square roots. Apply appropriate graphical, tabular, or symbolic methods to the solution. Include growth and decay; joint (e.g., $I = Prt$, $y = k(w_1 + w_2)$) and combined ($F = G(m_1m_2)/d^2$) variation, and periodic processes.</p>	
Unit/Topic/Lesson UNIT TEN Properties and Attributes of Functions		Unit/Topic/Lesson UNIT TEN Properties and Attributes of Functions	
<ol style="list-style-type: none"> Transformation of Functions Operations with Functions 		<ol style="list-style-type: none"> Functions and Inverses of Functions Modeling Data 	
Mission and Expectations		Mission and Expectations	
<ol style="list-style-type: none"> Critical Thinking Skills Problem Solving Skills Test Taking Skills 		<ol style="list-style-type: none"> Critical Thinking Skills Problem Solving Skills Test Taking Skills 	
Objectives	Essential Question	Objectives	Essential Question
<ol style="list-style-type: none"> To transform and recognize transformations of functions. To add, subtract, multiply, and divide functions. To work with the composition of functions. 	<p>How does the process of the composition of two function apply to real world situations?</p>	<ol style="list-style-type: none"> To determine whether one function is the inverse of another. To write rules for the inverses of functions. To apply functional concepts to solve problems. To use mathematics modeling to make predictions. 	<p>How do you use various functions to model a set of data?</p>
Teacher Resources <i>Holt Algebra 2 ©2007</i>	Media Resources <i>Holt Algebra 2 ©2007</i>	Teacher Resources <i>Holt Algebra 2 ©2007</i>	Media Resources <i>Holt Algebra 2 ©2007</i>
<ol style="list-style-type: none"> Chapter Nine lessons Chapter Nine Practice Worksheets Chapter Nine Pre-Made Assessments 	<ol style="list-style-type: none"> PowerPoint Presentations Textbook On-Line Homework Help (on-line) Test ExamPro Generator One-Stop CD Planner 	<ol style="list-style-type: none"> Chapter Nine lessons Chapter Nine Practice Worksheets Chapter Nine Pre-Made Assessments 	<ol style="list-style-type: none"> PowerPoint Presentations Textbook On-Line Homework Help (on-line) Test ExamPro Generator One-Stop CD Planner
Evaluation/Activities		Evaluation/Activities	
<p>Homework: To be given daily on each introduced topic Review: All weekly concepts. Quiz: Assessments given as warranted by the curriculum.</p>	<p>Completion date: Completed by: Comments:</p>	<p>Homework: To be given daily on each introduced topic Review: All weekly concepts. Quiz: Assessments given as warranted by the curriculum. Test: On concepts involving the Properties and Attributes of Functions.</p>	<p>Completion date: Completed by: Comments:</p>

Week 25		Week 26	
Performance Standards		Performance Standards	
<p><i>The students will:</i> 12.G.4 Relate geometric and algebraic representations of line, curves, and conic sections.</p>		<p><i>The students will:</i> 12.G.4 Relate geometric and algebraic representations of line, curves, and conic sections.</p>	
Unit/Topic/Lesson UNIT ELEVEN Conic Sections		Unit/Topic/Lesson UNIT ELEVEN Conic Sections	
<ol style="list-style-type: none"> 1. Introduction to Conic Sections 2. Circles 3. Ellipses 		<ol style="list-style-type: none"> 1. Hyperbolas 2. Parabolas 	
Mission and Expectations		Mission and Expectations	
<ol style="list-style-type: none"> 1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills 		<ol style="list-style-type: none"> 1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills 	
Objectives	Essential Question	Objectives	Essential Question
<ol style="list-style-type: none"> 1. To recognize conic sections as the intersections of planes and cones. 2. To write and graph the equations of circles and ellipses and identify their parts. 	How can a circle be defined in terms of distances?	<ol style="list-style-type: none"> 1. To write and graph the equations of a hyperbola or a parabola and ellipses and identify their parts. 	How are hyperbolas similar and different to ellipses?
Teacher Resources <i>Holt Algebra 2 ©2007</i>	Media Resources <i>Holt Algebra 2 ©2007</i>	Teacher Resources <i>Holt Algebra 2 ©2007</i>	Media Resources <i>Holt Algebra 2 ©2007</i>
<ol style="list-style-type: none"> 1. Chapter Ten lessons 2. Chapter Ten Practice Worksheets 3. Chapter Ten Pre-Made Assessments 	<ol style="list-style-type: none"> 1. PowerPoint Presentations 2. Textbook On-Line 3. Homework Help (on-line) 4. Test ExamPro Generator 5. One-Stop CD Planner 	<ol style="list-style-type: none"> 1. Chapter Ten lessons 2. Chapter Ten Practice Worksheets 3. Chapter Ten Pre-Made Assessments 	<ol style="list-style-type: none"> 1. PowerPoint Presentations 2. Textbook On-Line 3. Homework Help (on-line) 4. Test ExamPro Generator 5. One-Stop CD Planner
Evaluation/Activities		Evaluation/Activities	
<p>Homework: To be given daily on each introduced topic</p> <p>Review: All weekly concepts.</p> <p>Quiz: Assessments given as warranted by the curriculum.</p>	<p>Completion date:</p> <p>Completed by:</p> <p>Comments:</p>	<p>Homework: To be given daily on each introduced topic</p> <p>Review: All weekly concepts.</p> <p>Quiz: Assessments given as warranted by the curriculum.</p>	<p>Completion date:</p> <p>Completed by:</p> <p>Comments:</p>

Week 27		Week 28	
<p align="center">Performance Standards</p> <p><i>The students will:</i> 12.G.4 Relate geometric and algebraic representations of line, curves, and conic sections.</p>		<p align="center">Performance Standards</p> <p><i>The students will:</i> 12.D.2 Select an appropriate graphical representation for a set of data and use appropriate statistics (e.g., quartile or percentile distribution) to communicate information about the data. 12.D.6 Select an appropriate graphical representation for a set of data and use appropriate statistics (e.g., quartile or percentile distribution) to communicate information about the data. 12.P.1 Describe, complete, extend, analyze, generalize, and create a wide variety of patterns, including iterative and recursive patterns such as Pascal's Triangle.</p>	
<p align="center">Unit/Topic/Lesson UNIT ELEVEN Conic Sections</p> <ol style="list-style-type: none"> 1. Identification of Conic Sections 2. Solving Systems of Equations Involving Conic Sections 		<p align="center">Unit/Topic/Lesson UNIT TWELVE MCAS Review (Probability and Statistics)</p> <ol style="list-style-type: none"> 1. Graphical Representation of Data 2. Quartile and Percentile Distribution 3. Using the Appropriate Statistics and Data to Communicate Information 	
<p align="center">Mission and Expectations</p> <ol style="list-style-type: none"> 1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills 		<p align="center">Mission and Expectations</p> <ol style="list-style-type: none"> 1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills 	
<p align="center">Objectives</p> <ol style="list-style-type: none"> 1. To identify and graph conic sections. 2. To use completing the square to graph and identify conic sections. 3. To solve a system of equations involving at least one conic section. 	<p align="center">Essential Question</p> <p>How do you determine which conic section is being described by looking at the equation?</p>	<p align="center">Objectives</p> <ol style="list-style-type: none"> 1. To use the appropriate graphical representation of data. 2. To use the appropriate data and statistics to communicate information. 	<p align="center">Essential Question</p> <p>How do you know which is the most appropriate representation for a given set of data?</p>
<p align="center">Teacher Resources <i>Holt Algebra 2 ©2007</i></p> <ol style="list-style-type: none"> 1. Chapter Ten lessons 2. Chapter Ten Practice Worksheets 3. Chapter Ten Pre-Made Assessments 	<p align="center">Media Resources <i>Holt Algebra 2 ©2007</i></p> <ol style="list-style-type: none"> 1. PowerPoint Presentations 2. Textbook On-Line 3. Homework Help (on-line) 4. Test ExamPro Generator 5. One-Stop CD Planner 	<p align="center">Teacher Resources <i>Holt Algebra 2 ©2007</i></p> <ol style="list-style-type: none"> 1. Chapter Eleven lessons 2. Chapter Eleven Practice Worksheets 3. Chapter Eleven Pre-Made Assessments <p align="center"><i>Summit MCAS Mathematics ©2005</i></p> <ol style="list-style-type: none"> 1. Chapter Six lessons 2. Chapter Six Practice Exams 3. Chapter Six Review Problems 	<p align="center">Media Resources <i>Holt Algebra 2 ©2007</i></p> <ol style="list-style-type: none"> 1. PowerPoint Presentations 2. Textbook On-Line 3. Homework Help (on-line) 4. Test ExamPro Generator 5. One-Stop CD Planner
<p align="center">Evaluation/Activities</p> <p>Homework: To be given daily on each introduced topic Review: All weekly concepts. Quiz: Assessments given as warranted by the curriculum. Test: On the concepts of Conic Sections.</p>	<p>Completion date:</p> <p>Completed by:</p> <p>Comments:</p>	<p align="center">Evaluation/Activities</p> <p>Homework: To be given daily on each introduced topic Review: All weekly concepts. Quiz: Assessments given as warranted by the curriculum.</p>	<p>Completion date:</p> <p>Completed by:</p> <p>Comments:</p>

Week 29		Week 30	
<p align="center">Performance Standards</p> <p><i>The students will:</i> 12.P.2 Identify arithmetic and geometric sequences and finite arithmetic and geometric series. Use the properties of such sequences and series to solve problems, including finding the general term and sum recursively and explicitly.</p>		<p align="center">Performance Standards</p> <p><i>The students will:</i> 12.P.2 Identify arithmetic and geometric sequences and finite arithmetic and geometric series. Use the properties of such sequences and series to solve problems, including finding the general term and sum recursively and explicitly.</p>	
<p align="center">Unit/Topic/Lesson UNIT THIRTEEN Sequences and Series</p> <ol style="list-style-type: none"> Introduction to Sequences Series and Summation Notation Evaluation of Sequences and Series 		<p align="center">Unit/Topic/Lesson UNIT THIRTEEN Sequences and Series</p> <ol style="list-style-type: none"> Arithmetic Sequences Arithmetic Series Geometric Sequences 	
<p align="center">Mission and Expectations</p> <p><i>1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills</i></p>		<p align="center">Mission and Expectations</p> <p><i>1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills</i></p>	
<p align="center">Objectives</p> <ol style="list-style-type: none"> To find the nth term of a sequence. To write the rules for a sequence. To evaluate the sum of a series expressed in sigma notation. 	<p align="center">Essential Question</p> <p>What is the difference between an explicit formula and a recursive formula?</p>	<p align="center">Objectives</p> <ol style="list-style-type: none"> To find the indicated term of an arithmetic sequence. To find the sum of an arithmetic series. 	<p align="center">Essential Question</p> <p>How do you find the nth term of an arithmetic sequence without finding all of the terms prior to that term?</p>
<p align="center">Teacher Resources <i>Holt Algebra 2 ©2007</i></p> <ol style="list-style-type: none"> Chapter Twelve lessons Chapter Twelve Practice Worksheets Chapter Twelve Pre-Made Assessments 	<p align="center">Media Resources <i>Holt Algebra 2 ©2007</i></p> <ol style="list-style-type: none"> PowerPoint Presentations Textbook On-Line Homework Help (on-line) Test ExamPro Generator One-Stop CD Planner 	<p align="center">Teacher Resources <i>Holt Algebra 2 ©2007</i></p> <ol style="list-style-type: none"> Chapter Twelve lessons Chapter Twelve Practice Worksheets Chapter Twelve Pre-Made Assessments 	<p align="center">Media Resources <i>Holt Algebra 2 ©2007</i></p> <ol style="list-style-type: none"> PowerPoint Presentations Textbook On-Line Homework Help (on-line) Test ExamPro Generator One-Stop CD Planner
<p align="center">Evaluation/Activities</p> <p>Homework: To be given daily on each introduced topic Review: All weekly concepts. Quiz: Assessments given as warranted by the curriculum.</p>	<p>Completion date:</p> <p>Completed by:</p> <p>Comments:</p>	<p align="center">Evaluation/Activities</p> <p>Homework: To be given daily on each introduced topic Review: All weekly concepts. Quiz: Assessments given as warranted by the curriculum.</p>	<p>Completion date:</p> <p>Completed by:</p> <p>Comments:</p>

Week 31		Week 32	
<p align="center">Performance Standards</p> <p><i>The students will:</i> 12.P.2 Identify arithmetic and geometric sequences and finite arithmetic and geometric series. Use the properties of such sequences and series to solve problems, including finding the general term and sum recursively and explicitly.</p>		<p align="center">Performance Standards</p> <p><i>The students will:</i> 12.P.4 Demonstrate an understanding of the trigonometric, exponential, and logarithmic functions. 12.P.6 Given algebraic, numeric and/or graphical representations recognize functions as polynomial, rational, logarithmic, exponential, or trigonometric. 12.P.8 Solve a variety of equations and inequalities using algebraic, graphical, and numerical methods, including the quadratic formula; use technology where appropriate. Include polynomial, exponential, logarithmic, and trigonometric functions; expressions involving absolute values; trigonometric relations; and simple rational expressions.</p>	
<p align="center">Unit/Topic/Lesson UNIT THIRTEEN Sequences and Series</p> <ol style="list-style-type: none"> Geometric Series Mathematical Induction Infinite Geometric Series 		<p align="center">Unit/Topic/Lesson UNIT FOURTEEN Trigonometric Functions</p> <ol style="list-style-type: none"> Right-Angle Trigonometry Angles of Rotation 	
<p align="center">Mission and Expectations</p> <p>1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills</p>		<p align="center">Mission and Expectations</p> <p>1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills</p>	
<p align="center">Objectives</p> <ol style="list-style-type: none"> To find the indicated term of a geometric sequence. To find the sum of a geometric series. To mathematical induction to prove mathematical statements. 	<p align="center">Essential Question</p> <p>When can you find the sum of an infinite series?</p>	<p align="center">Objectives</p> <ol style="list-style-type: none"> To determine side length of right triangles by using trigonometric functions. To draw angles in standard position. To determine the values of the trigonometric functions for an angle in standard position. 	<p align="center">Essential Question</p> <p>How do you use right trigonometric ratios to find missing sides of right triangles?</p>
<p align="center">Teacher Resources <i>Holt Algebra 2 ©2007</i></p> <ol style="list-style-type: none"> Chapter Twelve lessons Chapter Twelve Practice Worksheets Chapter Twelve Pre-Made Assessments 	<p align="center">Media Resources <i>Holt Algebra 2 ©2007</i></p> <ol style="list-style-type: none"> PowerPoint Presentations Textbook On-Line Homework Help (on-line) Test ExamPro Generator One-Stop CD Planner 	<p align="center">Teacher Resources <i>Holt Algebra 2 ©2007</i></p> <ol style="list-style-type: none"> Chapter Thirteen lessons Chapter Thirteen Practice Worksheets Chapter Thirteen Pre-Made Assessments 	<p align="center">Media Resources <i>Holt Algebra 2 ©2007</i></p> <ol style="list-style-type: none"> PowerPoint Presentations Textbook On-Line Homework Help (on-line) Test ExamPro Generator One-Stop CD Planner
<p align="center">Evaluation/Activities</p> <p>Homework: To be given daily on each introduced topic Review: All weekly concepts. Quiz: Assessments given as warranted by the curriculum. Test: On the concepts of Sequences and Series.</p>	<p>Completion date:</p> <p>Completed by:</p> <p>Comments:</p>	<p align="center">Evaluation/Activities</p> <p>Homework: To be given daily on each introduced topic Review: All weekly concepts. Quiz: Assessments given as warranted by the curriculum.</p>	<p>Completion date:</p> <p>Completed by:</p> <p>Comments:</p>

Week 33

Performance Standards

The students will:
12.P.4 Demonstrate an understanding of the trigonometric, exponential, and logarithmic functions.
12.P.6 Given algebraic, numeric and/or graphical representations recognize functions as polynomial, rational, logarithmic, exponential, or trigonometric.
12.P.8 Solve a variety of equations and inequalities using algebraic, graphical, and numerical methods, including the quadratic formula; use technology where appropriate. Include polynomial, exponential, logarithmic, and trigonometric functions; expressions involving absolute values; trigonometric relations; and simple rational expressions.
12.P.11 Solve everyday problems that can be modeled using polynomial, rational, exponential, logarithmic, trigonometric, and step functions, absolute values, and square roots. Apply appropriate graphical, tabular, or symbolic methods to the solution. Include growth and decay; joint (e.g., $I = Prt$, $y = k(w_1 + w_2)$) and combined ($F = G(m_1m_2)/d^2$) variation, and periodic processes.

Unit/Topic/Lesson
UNIT FOURTEEN
Trigonometric Functions

- Working with the Unit Circle
- Inverse of Trigonometric Functions

Mission and Expectations

1. *Critical Thinking Skills* 2. *Problem Solving Skills* 3. *Test Taking Skills*

Objectives

- To convert angle measures between degrees and radians.
- To find the values of trigonometric functions on the unit circle.
- To evaluate inverse trigonometric functions.
- To use solve problem involving trigonometric inverses and functions.

Essential Question

How do you convert angle measure between degrees and radians and why would this conversion be necessary?

Teacher Resources
Holt Algebra 2 ©2007

- Chapter Thirteen lessons
- Chapter Thirteen Practice Worksheets
- Chapter Thirteen Pre-Made Assessments

Media Resources
Holt Algebra 2 ©2007

- PowerPoint Presentations
- Textbook On-Line
- Homework Help (on-line)
- Test ExamPro Generator
- One-Stop CD Planner

Evaluation/Activities

Homework: To be given daily on each introduced topic
Review: All weekly concepts.
Quiz: Assessments given as warranted by the curriculum.

Completion date:
Completed by:
Comments:

Week 34

Performance Standards

The students will:
12.P.4 Demonstrate an understanding of the trigonometric, exponential, and logarithmic functions.
12.P.6 Given algebraic, numeric and/or graphical representations recognize functions as polynomial, rational, logarithmic, exponential, or trigonometric.
12.P.8 Solve a variety of equations and inequalities using algebraic, graphical, and numerical methods, including the quadratic formula; use technology where appropriate. Include polynomial, exponential, logarithmic, and trigonometric functions; expressions involving absolute values; trigonometric relations; and simple rational expressions.

Unit/Topic/Lesson
UNIT FOURTEEN
Trigonometric Functions

- The Law of Sines
- The Law of Cosines

Mission and Expectations

1. *Critical Thinking Skills* 2. *Problem Solving Skills* 3. *Test Taking Skills*

Objectives

- To use the Law of Sines to find the side lengths and angle measures of a triangle.
- To use the Law of Cosines to find the side lengths and angle measures of a triangle.

Essential Question

How do you use the Laws and Sine and Cosine to find unknown angles and sides of triangles?

Teacher Resources
Holt Algebra 2 ©2007

- Chapter Thirteen lessons
- Chapter Thirteen Practice Worksheets
- Chapter Thirteen Pre-Made Assessments

Media Resources
Holt Algebra 2 ©2007

- PowerPoint Presentations
- Textbook On-Line
- Homework Help (on-line)
- Test ExamPro Generator
- One-Stop CD Planner

Evaluation/Activities

Homework: To be given daily on each introduced topic
Review: All weekly concepts.
Quiz: Assessments given as warranted by the curriculum.
Test: On the concepts of Trigonometric Functions.

Completion date:
Completed by:
Comments:

Week 35		Week 36	
Performance Standards		Performance Standards	
<p><i>The students will:</i> 12.P.4 Demonstrate an understanding of the trigonometric, exponential, and logarithmic functions. 12.P.6 Given algebraic, numeric and/or graphical representations recognize functions as polynomial, rational, logarithmic, exponential, or trigonometric. 12.P.8 Solve a variety of equations and inequalities using algebraic, graphical, and numerical methods, including the quadratic formula; use technology where appropriate. Include polynomial, exponential, logarithmic, and trigonometric functions; expressions involving absolute values; trigonometric relations; and simple rational expressions.</p>		<p><i>The students will:</i> 12.P.4 Demonstrate an understanding of the trigonometric, exponential, and logarithmic functions. 12.P.6 Given algebraic, numeric and/or graphical representations recognize functions as polynomial, rational, logarithmic, exponential, or trigonometric. 12.P.8 Solve a variety of equations and inequalities using algebraic, graphical, and numerical methods, including the quadratic formula; use technology where appropriate. Include polynomial, exponential, logarithmic, and trigonometric functions; expressions involving absolute values; trigonometric relations; and simple rational expressions.</p>	
Unit/Topic/Lesson UNIT FIFTEEN Trigonometric Graphs and Identities		Unit/Topic/Lesson UNIT FIFTEEN Trigonometric Graphs and Identities	
<ol style="list-style-type: none"> Graphs of Sines and Cosines Graphs of all Trigonometric Functions 		<ol style="list-style-type: none"> Trigonometric Identities Sum and Difference Identities Double-Angle and Half-Angle Identities 	
Mission and Expectations		Mission and Expectations	
<ol style="list-style-type: none"> Critical Thinking Skills Problem Solving Skills Test Taking Skills 		<ol style="list-style-type: none"> Critical Thinking Skills Problem Solving Skills Test Taking Skills 	
Objectives	Essential Question	Objectives	Essential Question
<ol style="list-style-type: none"> To recognize and graph trigonometric functions 	How do you determine which trigonometric function is graphed on a plane?	<ol style="list-style-type: none"> To use and verify trigonometric identities. To use sum, difference, double-angle, and half-angle identities to evaluate expressions. 	How do you prove that a trigonometric identity is true?
Teacher Resources <i>Holt Algebra 2 ©2007</i>	Media Resources <i>Holt Algebra 2 ©2007</i>	Teacher Resources <i>Holt Algebra 2 ©2007</i>	Media Resources <i>Holt Algebra 2 ©2007</i>
<ol style="list-style-type: none"> Chapter Fourteen lessons Chapter Fourteen Practice Worksheets Chapter Fourteen Pre-Made Assessments 	<ol style="list-style-type: none"> PowerPoint Presentations Textbook On-Line Homework Help (on-line) Test ExamPro Generator One-Stop CD Planner 	<ol style="list-style-type: none"> Chapter Fourteen lessons Chapter Fourteen Practice Worksheets Chapter Fourteen Pre-Made Assessments 	<ol style="list-style-type: none"> PowerPoint Presentations Textbook On-Line Homework Help (on-line) Test ExamPro Generator One-Stop CD Planner
Evaluation/Activities	Completion date:	Evaluation/Activities	Completion date:
<p>Homework: To be given daily on each introduced topic Review: All weekly concepts. Quiz: Assessments given as warranted by the curriculum.</p>	<p>Completed by:</p> <p>Comments:</p>	<p>Homework: To be given daily on each introduced topic Review: All weekly concepts. Quiz: Assessments given as warranted by the curriculum. Test: On concepts involving Trigonometric Graphs and Identities.</p>	<p>Completed by:</p> <p>Comments:</p>